

## WHAT IS CLAIMED IS:

1. A method for producing an iron oxide coating on a glass article, comprising:  
providing a heated glass substrate having a surface on which the coating is to be deposited;  
directing ferrocene and an oxidant toward and along the surface to be coated; and  
reacting the ferrocene and the oxidant at or near the surface of the glass substrate to form an iron oxide coating.
2. The method according to claim 1 further comprising providing an inert carrier gas with the ferrocene and oxidant.
3. The method according to claim 1 wherein the oxidant is oxygen gas.
4. The method according to claim 1 further comprising cooling the coated glass article to ambient temperature.
5. The method according to claim 2, wherein the inert carrier gas comprises at least one of helium and nitrogen.

6. The method according to claim 1 wherein the iron oxide layer is deposited at a rate of greater than or equal to about 200 Å/sec.
7. The method according to claim 2, wherein the gas phase ferrocene concentration is in the range of about 0.1 to about 5.0%.
8. The method according to claim 2, wherein the gas phase ferrocene concentration is in the range of about 0.3 to about 3.0%.
9. The method according to claim 2, wherein the gas phase ferrocene concentration is in the range of about 0.6 to about 2.5%.
10. The method according to claim 2, wherein the gas phase oxidant concentration is about 1 to about 50%.
11. The method according to claim 2, wherein the gas phase oxidant concentration is about 3 to about 40%.
12. The method according to claim 2, wherein the gas phase oxidant concentration is about 5 to about 35%.

13. The method according to claim 1, wherein the deposited iron oxide coating as a thickness between about 300 and about 700 Å
14. The method according to claim 2, further comprising dissolving the ferrocene in a solvent.
15. The method according to claim 1, wherein the method occurs in an on-line float glass production process.
16. A method of utilizing ferrocene in a chemical vapor deposition process to form an iron oxide layer on a substrate.
17. The method according to claim 16 comprising depositing an iron oxide layer on the substrate at a rate of greater than or equal to about 200 Å/sec.
18. The method according to claim 16, wherein the iron oxide layer has a thickness between about 300 and about 700 Å.
19. The method according to claim 16, wherein the deposited iron oxide layer has a thickness between about 400 and about 650 Å.

20. The method according to claim 16, wherein the deposited iron oxide layer has a thickness between about 500 and about 625 Å.
21. A coated glass article comprising:  
a glass substrate; and  
an iron oxide coating deposited thereon, the iron oxide coating comprising primarily iron oxide in the form  $\text{Fe}_2\text{O}_3$ ; wherein  
the coated glass article has an  $a^*$  value between about -5 and about 10, and a  $b^*$  value between about 10 and about 40, for both transmitted and reflected light.
22. The coated glass article according to claim 21 wherein the thickness of the iron oxide coating is between about 300 and about 700 Å.
23. The coated glass article according to claim 21 wherein the thickness of the iron oxide coating is between about 400 and about 650 Å.
24. The coated glass article according to claim 21 wherein the thickness of the iron oxide coating is between about 500 and about 625 Å.

25. The coated glass article according to claim 21 wherein the  $a^*$  value is between about -1 and about 8, and the  $b^*$  value is between about 18 and about 40, for both transmitted and reflected light.

26. A coated glass article produced according to the method of claim 1.